NINETEENTH JUDICIAL DISTRICT COURT

PARISH OF EAST BATON ROUGE

STATE OF LOUISIANA

ROBERT C. GILBOY	*	NUMBER 314,002
VERSUS	*	DIVISION "I"
THE AMERICAN TOBACCO COMPANY, ET AL	*	

Property of: Ness, Motley
Main PI File Room
Charleston, SC

COPY

Deposition of ERICH K. LANG, M.D., taken on Tuesday, July 13, 1993, in the law offices of Sessions and Fishman, 35th Floor, 201 St. Charles Avenue, New Orleans, Louisiana.

MNAT 00021891

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

APPEARANCES:

COVERT & BRAUD
(BY: GEORGE R. COVERT, ESQ.)
10621 North Oak Hills Parkway
Baton Rouge, Louisiana 70810
(ATTORNEYS FOR ROBERT C. GILBOY)

SESSIONS & FISHMAN
(BY: ROBERT E. WINN, ESQ.
AND JOY BRAUN, ESQ.)
Place St. Charles - 35th Floor
201 St. Charles Avenue
New Orleans, Louisiana 70170
- AND -
CHADBOURNE & PARKE
(BY: BRUCE G. SHEFFLER, ESQ.)
30 Rockefeller Plaza
New York, New York 10112
(CO-COUNSEL FOR THE AMERICAN TOBACCO COMPANY)

JONES, DAY, REAVIS & POGUE
(BY: MARK A. BELASIC, ESQ.)
North Point
901 Lakeside Avenue
Cleveland, Ohio 44114
(ATTORNEYS FOR R.J. REYNOLDS TOBACCO COMPANY)

REPORTED BY:
ROBERT K. TUCKER
CERTIFIED SHORTHAND REPORTER

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

S T I P U L A T I O N

It is stipulated and agreed by and between counsel for the parties that the deposition of ERICH K. LANG, M.D. is hereby taken for discovery under the Louisiana Code of Civil Procedure, in accordance with law, pursuant to notice, on Tuesday, July 13, 1993, in the law offices of Sessions and Fishman, 35th Floor, 201 St. Charles Avenue, New Orleans, Louisiana;

That the formalities of sealing, certification and filing are waived; the formality of signing is not waived;

That all objections, save those as to the form of the questions and the responsiveness of the answers, are hereby reserved until such time as this deposition, or any part thereof, may be used or sought to be used in evidence.

ROBERT K. TUCKER, Certified Shorthand Reporter in and for the Parish of Orleans, State of Louisiana, officiated in administering the oath to the above-named witness.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

ERICH K. LANG, M.D., Professor and Chairman of Department of Radiology, LSU Medical Center, 1542 Tulane Avenue, New Orleans, Louisiana 70112, who, after having been first duly sworn, did testify as follows:

EXAMINATION BY MR. COVERT:

Q. Dr. Lang, I'm sure you've given depositions before.

MR. WINN:

Excuse me. We will want to reserve reading and signing.

Dr. Lang, you will have the opportunity to review the deposition once it's completed to make whatever changes or corrections.

EXAMINATION BY MR. COVERT:

Q. Dr. Lang, you've given depositions before?

A. Yes. I have.

Q. And you're familiar with the ground rules and everything?

If you don't understand one of my questions, certainly stop me and say, "I don't understand what you're talking about," and we'll try to rephrase it and everything.

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support http://www.industrydocuments.ucsf.edu/docs/lyhl0001

A. Thank you.

Q. What's your name and address, Doctor?

A. Erich K. Lang, [DELETED]

Q. Dr. Lang, based upon your education, training and experience, have you reached any conclusions regarding the effect of cigarette smoking and lung cancer?

A. Yes. I have.

Q. And what is that conclusion, sir?

A. That there is a risk factor inherent to cigarette smoking in the development of chronic bronchitis, which, in turn, is associated with certain types of lung cancers.

Q. Okay. Is it your opinion, sir, that you can develop the lung cancer from cigarette smoking without the development of bronchitis?

A. To my knowledge, the statistical relationship is cross-linked with chronic bronchitis.

Q. I see. Well, sir, if the cigarette companies in this case have denied

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

that there's any association between cigarette smoking and lung cancer, you would be in disagreement with that?

MR. WINN:

Excuse me. His function is not to comment on what the cigarette companies or the lawyers have done or not done.

MR. COVERT:

Subject to the objection, sir.

THE WITNESS:

Yeah.

EXAMINATION BY MR. COVERT:

Q. Dr. Lang, in this case, and I'm not asking you to criticize or dispute any expert testimony or anything else, but purely and simply, evidence will be introduced in this case under the guise of Answers to Interrogatories by the defendants; that they contend that there's been -- it hasn't been statistically established that cigarettes cause lung cancer. So my question, do you agree or disagree with the answers to those interrogatories?

MR. WINN:

Excuse me, Jerry, but I think

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

it is an inappropriate way of posing the question. But I think if you are going to ask him the question, I think you should give him a copy of the interrogatory and the answers and let him look at it exactly, which, by the way, I'm not sure, but I think is the proper way to do it.

MR. COVERT:

You're probably right. I didn't bring the question.

EXAMINATION BY MR. COVERT:

Q. So if the interrogatories indicate that, would you be in agreement with the position of the defendants?

A. I can't --

MR. WINN:

Note my objection.

THE WITNESS:

I can't answer the question as you pose it because there is a certain degree of vagueness in it. I don't know what the cigarette companies and their experts have said.

The knowledge and the risk factor of carcinoma, lung carcinoma, and

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

it is an inappropriate way of posing the question. But I think if you are going to ask him the question, I think you should give him a copy of the interrogatory and the answers and let him look at it exactly, which, by the way, I'm not sure, but I think is the proper way to do it.

MR. COVERT:

You're probably right. I didn't bring the question.

EXAMINATION BY MR. COVERT:

Q. So if the interrogatories indicate that, would you be in agreement with the position of the defendants?

A. I can't --

MR. WINN:

Note my objection.

THE WITNESS:

I can't answer the question as you pose it because there is a certain degree of vagueness in it. I don't know what the cigarette companies and their experts have said.

The knowledge and the risk factor of carcinoma, lung carcinoma, and

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

cigarette smoking is related via the pathway of chronic bronchitis, as I said earlier. I don't know what your prior statement is precisely. Is that via the pathway of chronic bronchitis? Or if it's not, if it's not, then I disagree.

MR. WINN:

Why don't we go to another question? I hate to ask him to speculate on something he can't read.

MR. COVERT:

I think we got what we wanted.

EXAMINATION BY MR. COVERT:

Q. Doctor, could you tell me a little bit about your educational background, please, sir?

A. Yeah. I'm a graduate of the University of Vienna Medical School. I then had further education at Columbia University, New York, master's. I had my internship at the University of Iowa hospitals in Iowa City; my residency training in radiology at Johns Hopkins Hospital, University, in Baltimore.

Q. And where have you practiced since you've been finished with your education?

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

A. I was on the staff of Johns Hopkins University for two years. I was then --

Q. Excuse me. In what field?

A. Radiology. I'm talking after completing my training in radiology.

Q. Sure. Okay.

A. I was on staff on the Department of Radiology at Johns Hopkins Medical Center and Hospital in Baltimore for two years. After that, I was at the Methodist Hospital in Indianapolis, Indiana, for approximately six years. And the past 25 years, I have been with LSU approximately eight years as chairman of the Department of Radiology in Shreveport and approximately 16 years the chairman down here at New Orleans Medical Center. And the last year, I have been partially on sabbatical, which was spent as guest professor at Johns Hopkins, Baltimore, University of Vienna and Oxford.

Q. In relationship to your practical experience -- put it another way, Dr. Lang. Have you done any writings relative to the etiology of lung cancers?

A. No. I have not.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/cyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

Q. Have you done any experimentation related to etiology of lung cancers?

A. No. I have not.

Q. Have you done any writings related or written any articles relating to the etiology of lung cancer?

A. No. I have not.

Q. So I take it that your purpose in this case is just to interpret certain X-rays that you've reviewed; is that a correct statement?

A. Yes. I would say so.

Q. And could you tell me, sir, do you have available what materials you've reviewed in preparation for this deposition?

A. Yes. I reviewed the records that were made available to me, consisting basically of the various hospitalizations and outpatient records pertaining to the case.

Q. Okay. Did that include X-rays going back to 1977, or X-ray reports? I'm sure there were none.

A. The X-ray reports to 1977 were available to me. The films were available from 1984.

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

Q. I see.

Did you obtain any history relative to Robert Gilboy?

A. Yes.

Q. And what was that history?

A. The history as recorded on the various admission notes at the hospital.

Q. And did you pay any attention to the statements he made relative to his cigarette smoking?

A. They were in the history.

Q. Okay.

A. Yeah.

Q. Did you take that into consideration in viewing these X-rays, Dr. Lang; the fact that he was a smoker?

A. The fact that he was a smoker was known to me and was recorded in the history, yes.

Q. And did that have any significance to you?

A. Well, the interpretation of the X-rays is based on what evidence is on the X-rays.

Q. Based upon your views of the

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

X-rays, Dr. Lang, did you reach a conclusion as to whether or not Mr. Gilboy had lung cancer?

MR. WINN:

You mean not only the X-rays, but you mean X-rays and other information available to him available in the medical record?

MR. COVERT:

Sure.

THE WITNESS:

On basis of the sum total of the information available to me, yes, I did reach a conclusion.

EXAMINATION BY MR. COVERT:

Q. And what was that, sir?

A. That he did suffer from what appeared to be a metastatic carcinoma, presumably with a primary in the lung.

Q. Why do you say "presumably with a primary in the lung"?

A. Because while the histologic evidence suggests that we're dealing with an adenoma carcinoma of the lung, there could be other metastatic carcinomas that could present

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

in a lung as well as in the brain that may be difficult to differentiate. And short of an autopsy, you cannot exclude that. But it's highly presumptive evidence that it is a primary of the lung, metastatic to other organs.

Q. I see.

Dr. Lang, in your education and experience, have you reached a conclusion as to the causes of lung cancer?

MR. WINN:

You're talking about, generally, lung cancer?

MR. COVERT:

Generally, yes, sir.

THE WITNESS:

There are a number of risk factors that have been suggested, basically, on the basis of statistical evaluation of data. And these are known, yes.

EXAMINATION BY MR. COVERT:

Q. Are you aware of any experiments that have been made, Dr. Lang, indicating that there are carcinogenic agents in tobacco smoke?

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

A. I'm not in particular familiar with the carcinogenic substance studies that are specific out of tobacco or extracts of tobacco. No. I'm not familiar in detail with these.

Q. I see. Can you just give me a little bit about your familiarity? So we won't waste time, what are you familiar with?

A. Well, I mean, I'm familiar with the theory of silicates that with low aluminum concentration that have been incriminated as a possible cause for carcinoma of this type. Yeah.

Q. I guess my question, Dr. Lang, are you familiar with the tumorigenic agents in tobacco and tobacco smoke found in the Surgeon General's report of 1989?

MR. WINN:

I'm going to object to the form of the question. What do you mean by "familiar with"? I think your question should be reframed as to what particularly he knows or doesn't know and not --

MR. COVERT:

Well, if he doesn't know, he

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support http://www.industrydocuments.ucsf.edu/docs/lyhl0001

doesn't know. If he knows, I'll show it to him.

THE WITNESS:

You would have to give me the specific detail of the chemical that you're incriminating and what specifically is in it. I have read the report some time ago. I'm not familiar with the specific statistical data without refreshing my memory.

EXAMINATION BY MR. COVERT:

Q. This -- I'm referring you to Table 7 of the 1989 Surgeon General's report, indicating certain tumorigenic agents found in cigarette smoke. Are you familiar with that?

A. Yeah.

Q. Okay, sir. So do you agree that those agents could play a part in the development of lung cancer, some of them?

MR. WINN:

Excuse me. I don't think you've laid a predicate. He said he's familiar with it in the sense he's reading it. I think to ask him to conclude to what role, if any, they could have, I think, A, Jerry, you should give him time to review the whole

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/lyhl0001

material, and, B, I don't think you've laid a predicate for his being asked a question.

MR. COVERT:

Certainly.

MR. WINN:

It's an objection to the form of the question, not just otherwise.

MR. COVERT:

While you're looking, Dr. Lang --

MR. WINN:

Jerry, do you have a full page?

MR. COVERT:

It's on the second side.

(Short break)

THE WITNESS:

Well, it -- you're giving me here a lot of --

MR. WINN:

This is 89, 88, if that is the --

THE WITNESS:

But an incomplete number of things. You're giving me here Table 7, which is on page 86 and 87. You're giving me a Table 8, which is 89. So page 88 is missing.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

I don't know what's on that.

MR. COVERT:

Okay. That's certainly --

THE WITNESS:

But what you are giving me here does give ---

MR. WINN:

He's referring to Table 7, page 86.

THE WITNESS:

In respect to Table 7, I'm familiar with it, but not in detail. What it states here, in essence, you have evidence of carcinogenicity established in lab animals. As far as human is concerned, benzpyrene is given as a problem. And only some of the aromatics are given as sufficient. The others are given as inadequate or not available.

EXAMINATION BY MR. COVERT:

Q. Certainly.

A. So it's -- basically, what this table, Table 7, would indicate is that in lab animals, there are data available.

Q. Okay, sir. That's certainly -- I appreciate your explanation on that. If I

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

could.

A. Sure.

Q. I can't remember any of the questions that I wrote down, Dr. Lang.

(Witness handing documents back to counsel.)

Well, Doctor, regarding some of these agents that we've previously discussed, is there anything anatomical about the lung to prevent those agents from reaching all portions of the lung?

MR. WINN:

I don't know that you've laid a proper predicate for that question, Jerry. Note my objection to the foundation.

MR. COVERT:

Bob, this is discovery.

MR. WINN:

I know that, but I think --

THE WITNESS:

I cannot answer this question for these agents. I would have to study it. I'm not familiar what the ash values and what the animals in the various areas were. Nowhere do you provide that to me right now, so I don't know it.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

EXAMINATION BY MR. COVERT:

Q. All right, sir. Assuming these relate to sidestream and mainstream smoke.

MR. WINN:

You want to define what you understand those terms to mean? He may not have the same understanding as you.

MR. COVERT:

Sure.

EXAMINATION BY MR. COVERT:

Q. Dr. Lang, you've stated that you've seen this. Table 8 relates to undiluted to cigarette sidestream smoke. Are you familiar with that phrase?

A. I'm familiar with that phrase, yes.

Q. Is there anything anatomically in the lungs to prevent sidestream smoke from reaching all portions of the lung?

A. I cannot answer that. Again, there would have to be evidence given to me for diffusion studies. You're not giving me the diffusion studies. There is a differential diffusion in various areas of the lung under certain circumstances you're not

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

giving me, and I cannot offhand answer the question.

Q. Okay, sir. That's perfectly agreeable.

Dr. Lang, I know you didn't bring the -- your reports, so Mr. Winn has explained it to me, but we discussed a little bit the Baton Rouge clinic report.

MR. WINN:

About reports, you mean about -- you mean materials that he reviewed?

MR. COVERT:

Of 1977.

EXAMINATION BY MR. COVERT:

Q. Are you familiar with that?

A. Yes. I am.

Q. And I think the indication was pleural thickening in the lower right lobe, is that correct?

A. Yes, sir.

Q. Backing up a little bit, what is your appreciation, if, in fact, Mr. Gilboy has a lung cancer, the location of such?

A. The location of the lung cancer is probably best defined and easier seen on the

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

computer tomograms and the CAT scans in '89 where you have a three-dimensional appreciation of the pathology in relationship to the pleural lesion. It's a peripheral lesion. It is a posterior-located lesion, and it's in the upper lung field.

Q. Of which lung?

A. The right.

Q. Okay, sir. Does the indication of pleural thickening in the lower right lobe of 1977 have any significance to you as a radiologist, Dr. Lang?

MR. SHEFFLER:

Just make one objection here. I don't think you mean to mischaracterize the report. It doesn't really say the lower right lobe. It says the lower half of the right lung.

MR. COVERT:

Okay.

MR. WINN:

Why don't we put that in front of Dr. Lang if you're going to ask a question about it?

MR. COVERT:

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

Sure.

MR. WINN:

I'm sure we're looking at the same thing.

MR. COVERT:

Right. I didn't mean to mischaracterize it, Dr. Lang.

EXAMINATION BY MR. COVERT:

Q. The lower right lobe -- lower right lung.

A. Right lung, yeah.

Q. Does that have any significance to you as a radiologist, sir?

A. Yes. It does.

Q. What's the significance?

A. That there is a process that involves the pleurae in the described area.

Q. Am I correct in assuming that there are many causes of pleural thickening, Dr. Lang?

A. That is correct.

Q. Okay, sir. Predicated upon the history which you've gleaned from the examination of Mr. Gilboy's records, did you reach a conclusion as to the possible cause of

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

this pleural thickening in the right lower lung?

MR. WINN:

Lower half of the right lung.

EXAMINATION BY MR. COVERT:

Q. Lower half of the right lung.

A. There can be enumerable causes. By statistical probability, the most likely one is an infection that originated in the lung spread to the pleural surface, and then secondarily caused the pleural changes. And again, by mere probability, tuberculosis would be the highest probability.

This is further supported by the fact that there are calcifications in lymph nodes, which is, again, a fairly common characteristic of a manifestation thereof. However, granulomatous agents could cause it. And if there were a history, for example, penetrating trauma to the pleural space could cause it. We have no history of the penetrating trauma that the gentleman was subjected to at any time.

Q. Did you find any evidence of tuberculosis in Mr. Gilboy's history?

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

A. The history per se' does not specify that. However, the chest roentgenograms, over the entire period that is available to us, is certainly consistent with it. The type of calcifications in lymph nodes, the type of pleurae reaction, the type of fibrotic changes in the lung is very consistent with it. And, as I say, statistically, this is a high probability.

Q. All right, Dr. Lang. You aren't telling me that tuberculosis is diagnosed radiologically, are you?

A. No. There are characteristic findings that are consistent with tuberculosis. Certainly, histoplasmosis or other infectious agents can sometimes cause an identical picture. I'm saying that the probability of tuberculosis in general is the highest one. Histoplasmosis could do the same thing. Other infectious agents could certainly do the same thing.

Q. Did you, in any of your examination of the records of Mr. Gilboy, pathologically, chemically, see any evidence of positive tuberculosis tests?

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

A. No. There was no evidence of active TB in his records.

Q. Could I see?

Dr. Lang, does the notation by this radiologist that no active pulmonary disease period have any significance to you?

MR. WINN:

Referring again to the '77 report.

MR. COVERT:

Yes, still the '77 report.

THE WITNESS:

This is a '77 report. And this is an appropriate statement because, obviously, with evidence of pleural disease, the question of the treating clinician would be is there any active parenchymal disease that is present that needs treatment? And the radiologist commented on that and said that there was no active parenchymal disease, which is appropriate.

EXAMINATION BY MR. COVERT:

Q. I see.

Okay. I think the next -- from what you've told me, the next X-rays that you

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support http://www.industrydocuments.ucsf.edu/docs/lyhl0001

examined were those of Ochsner in 1984, is that correct?

A. '84.

Q. Do you have those reports before you, Doctor? I hope you can read it. Mine is -- this is the illegible one.

MR. WINN:

Ours is as bad as yours, Jerry.

MR. COVERT:

Could we go off the record?

(Off-the-record discussion)

EXAMINATION BY MR. COVERT:

Q. Doctor, I think the next X-ray that you've told me that you examined was the Ochsner X-ray of 1984. Did you actually look at that film, sir?

A. Yes. I did.

Q. Okay, sir. I'm looking at the radiological report that we've just gone over, where it was interpreted as scars seen throughout the right hemithorax with some loss of volume in the right hemithorax. Do you agree with that conclusion?

A. Yes. I do.

Q. Okay, sir. Could you describe

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

these scars to me, if you recall them?

A. There were some fibrotic scars in the upper lung field that appeared to be in peripheral. Parenchymal scars appeared to be peripheral. There were obvious extensive pleural scars that you could see that were perhaps most prominent shown in the lower lung field area because the contrast, at best, in this region. But they extended all the way up as far as you could see. And there was a sail-like configuration of a scar that was clearly in the upper lung field.

Q. Let's go back to the pleura, if we may.

A. Yeah.

Q. We've previously discussed the pleural thickening in the lower lung.

A. Yes.

Q. Was this the same manifestation that we discussed earlier, in your opinion, or was this an extension of this pleural thickening?

A. No. I think it was the same manifestation.

Q. All right, sir. And the next

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

thing you stated was fibrosis throughout the right upper lung field?

A. There were fibrotic lung strands in the right upper lung field. Yeah, parenchymal.

Q. And what does "fibrotic" mean?

A. Fibrotic is a formation of a scar that usually, again, is a consequence of an inflammatory process or possibly of other injurious process to the area. And it's the healing phase of it. So, again, it would be consistent with a prior, for example, infectious process, most likely then tubercular process, that existed a long time ago.

Q. And, Dr. Lang, if I'm again re-envisioning what you're saying, the prior X-ray was that no active pulmonary disease. And I take it that that scarring would have not been -- if it had been present in 1977, it would have been mentioned by the radiologist.

MR. WINN:

Wait. Excuse me. I think your question is very confusing, Jerry. I think you have to clarify it.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

MR. COVERT:

Sure.

EXAMINATION BY MR. COVERT:

Q. Doctor, if you don't understand me, just let me know you don't understand. But again, we are now speaking of the fibrotic process --

A. Yeah.

Q. -- in the upper lung.

MR. WINN:

As evidenced by the Ochsner '84 X-rays.

MR. COVERT:

That's correct.

MR. WINN:

Okay.

EXAMINATION BY MR. COVERT:

Q. In your opinion, sir, is this something that arose between 1977 and 1984?

A. I can't postulate on that. The 1977 report makes a statement of no active pulmonary disease. Scarring is not active pulmonary disease. Therefore, it is not inconsistent. The two reports are not inconsistent at all. Scarring is not active

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

pulmonary disease.

Q. Okay, sir.

In your teachings, Dr. Lang, at LSU, do you teach your students in radiology to make a notation of something such as fibrotic condition of the lung?

A. In general, you do. However, this particular -- you're referring, I presume, to the report of 1977. He is mentioning scarring and describes it largely to the pleurae. There may be immediately below that scarring of the lung associated with it. He may not have opted to specifically mention that. He did make the appropriate notation that there was no active pulmonary disease.

Q. I'm having difficulty squaring your answer to that question, Dr. Lang, by Dr. Facuris' (Spelled phonetically) notation that there was pleural thickening over the lower half of the right lung, and I think you stated this fibrotic condition was in the upper lung. Did I misunderstand you?

MR. WINN:

I don't know if there's a question there.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

MR. COVERT:

There's a question in my mind.

MR. WINN:

I don't know if he can answer that. I think you have to pose a question to him that he can respond to.

EXAMINATION BY MR. COVERT:

Q. Well, you know, in 1977, we were talking about the pleural thickening over the lower half of the right lung. And as I understand your comments about the examination of the Ochsner X-rays, you're speaking about a fibrotic condition in the upper portion of the right lung, is that correct?

A. But that's 1984.

Q. Right. I understand, sir.

A. Yeah. In 1984, there were fibrotic, definitive fibrotic, changes that I can see on the films and, obviously, that were described here.

MR. WINN:

Jerry, and, of course, I'm laboring, as you are, with this bad picture, this bad copy, it refers to scars are seen throughout the right hemithorax.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

MR. COVERT:

Correct. Correct.

MR. WINN:

Not excluding anything as I read it.

MR. COVERT:

Let me back that up.

EXAMINATION BY MR. COVERT:

Q. Dr. Lang, correct me if I'm wrong, but I thought you said that there was fibrosis in the area where the tumor was. Did I miss -- was I getting ahead of myself?

A. You are.

Q. Okay, sir. So there was scarring throughout the right hemithorax. And what is the right hemithorax?

A. The right half the thorax, that's the right hemithorax.

Q. Okay, sir.

A. And that's all he says in the report. That's from top to bottom.

Q. The Ochsner report?

A. Yeah.

Q. All right, sir.

A. He doesn't --

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

Q. Based upon the history that you reviewed, Dr. Lang, did you reach any conclusion as to the causation of this fibrosis?

MR. WINN:

Excuse me. As well as his own observations as a radiologist and experience?

MR. COVERT:

Sure. Sure.

MR. WINN:

All right.

THE WITNESS:

I can only, on the composite of what is available to me, largely base and weight it by radiologic findings. Yes, I think the most likely cause is that there was an underlying inflammatory process that led to secondary fibrotic changes on the pleural surface. There is no history of trauma that would have been another common cause that could have caused that. But, historically, this is not recorded.

EXAMINATION BY MR. COVERT:

Q. Was there evidence of an effusion in the Ochsner report of 1985?

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support http://www.industrydocuments.ucsf.edu/docs/lyhl0001

A. No. I don't think there is evidence of an effusion.

Q. Doctor, do malignancies cause scarring such as you've described, the fibrosis of the lungs?

MR. WINN:

I object to the form of the question. I don't think it is precise enough, Jerry. The objection noted and Dr. Lang could, of course, clarify it.

EXAMINATION BY MR. COVERT:

Q. Well, let's back up a little bit, Dr. Lang. You stated that there's certain things that can cause this scarring.

A. Yes.

Q. Of which trauma, tuberculosis, granulomas disease, I think. Do cancers or tumors cause scarring of the lungs?

A. No. In general, they do not. The classical format for this scarring that you see here, which, again, let me repeat what I said earlier, is a pleural, secondary pleural, scar which is caused most often by an inflammatory process in the lung, that inflammatory process being most often

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

tuberculosis or other infections. Empyema, pleural empyema, can cause it. Trauma can cause it; pleural hematoma. A hemothorax can cause it. These are the common causes. Lung cancer per se' does not cause scarring on the pleural surface.

Q. Okay. I see where we're going on, and it's my fault. Thank you very much.

Now, let's move into the parenchyma of the lung rather than the pleurae.

A. In the parenchyma of the lung, once again, lung cancer per se' does not tend to cause scarring. There is a theory that obliteration of vessels could possibly give secondary atelectasis, obliteration of lung vessels.

Q. Would that appear radiologically the same as the scarring which you saw in 1984?

A. No. It would not.

Q. What would be the difference, Dr. Lang?

A. I just said. It gives you a secondary peripheral atelectasis. There is no

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

evidence of that.

Q. I see. So, again, moving to the parenchyma of the lung, did you reach any conclusion predicated upon the history that you reviewed in this case as to the cause of this scarring in the parenchyma?

MR. WINN:

And with the review of other X-rays?

EXAMINATION BY MR. COVERT:

Q. Everything you saw.

A. The sum total information available to me consisting of history, histopathologic findings and X-rays, yes, I did reach a conclusion.

Q. And what was that, sir?

A. The conclusion is that we're dealing with a scar carcinoma; that is, a carcinoma forming in a preexisting scar.

Q. Am I safe in assuming, sir, that that scar would have occurred between 1977 and 1984?

A. No. I would not say that. I have no evidence that excludes any scar with definity on 1977 or nor I have seen the film

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

of 1977. The only thing that the 1977 report specifies is pleural scarring. It is, however, reasonable to assume that it was probably some associated parenchymal scarring and that the radiologist simply commented on the pertinent fact that there was no active pulmonary disease, which he did.

Q. Well, sir, we're getting in the argument. In the contrary, just as likely that it was no scarring, or he would have commented on it. Isn't that just as logical as your conclusion?

MR. WINN:

Excuse me. I object to the form of the question, if it is a question. If it's not a question --

MR. COVERT:

Let's make it a question.

EXAMINATION BY MR. COVERT:

Q. Assuming that the doctor did not see any scarring in the parenchyma of the lung of 1977, would it be your conclusion that this scarring grew between 1977 and 1984?

A. Well, there is no negative statement that he didn't see any scarring.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

All he gives you in the report that is available to me is positive statements that he saw pleural scarring and he saw no active parenchymal disease. That's all he says on the report.

Q. I've got the picture, Dr. Lang.

MR. WINN:

He says active pulmonary disease, not parenchymal.

MR. SHEFFLER:

He asks the questions.

EXAMINATION BY MR. COVERT:

Q. I think we've got the picture on that.

In regarding lung cancers, I've noticed a phrase called "latency period." Are you familiar with that phrase in regard to lung cancers?

A. Yes. I am.

Q. And have you reached a conclusion as to the latency period between -- in the development of lung cancers?

MR. WINN:

Object to the form, Jerry. Too broad. With that, you can answer the

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

question, Doctor.

THE WITNESS:

I think -- I'm afraid I don't know what you're driving at. There is a latency period, yes.

EXAMINATION BY MR. COVERT:

Q. What is your appreciation of the latency period, Dr. Lang?

A. It's variable for the various types, histologic types. It differs for the histologic types, but there's a definite latency period that can extend over many years.

Q. What is your appreciation as to adenocarcinoma, as to the latency period, just the range?

A. The range tends to be considerable.

Q. And being what, sir?

A. It is stated anywhere from a few years to many years. It's quite variable, but it is a -- it's a prolonged latency period.

Q. Are there any authorities upon which you rely, Dr. Lang, to establish this latency period?

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

A. This is out of my area of expertise. Basically, in our literature, it is basically established as a latency period documented from the occurrences of what we can see as radiologists on films as scars and, many years later, the development of a proven carcinoma in that area.

Q. Okay. So, Dr. Lang, in your area, you're speaking of books and works regarding radiology, is that correct?

A. That is correct.

Q. Okay, sir. So you have not conducted any test and you aren't prepared to say what you yourself have examined by any test or anything else, just general readings in radiological books?

A. I don't get the question. Could you repeat the question?

Q. Surely.

What you're telling us about the latency period arises only from your studies in books and works relating to radiology; is that a correct statement?

A. Yes. I have not studied epidemiology of latency.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/lyhl0001

Q. Doctor, you stated that you thought that Mr. Gilboy's cancer was caused by the scarring. Is that what I understood you to say?

A. That is developed in the scar, yes.

MR. WINN:

He said it was a scar carcinoma.

EXAMINATION BY MR. COVERT:

Q. Developed in the scar carcinoma. All right, sir.

Is it your -- are you telling me, Dr. Lang, that it's your opinion that whatever caused the scarring, likewise, caused this tumor?

A. That question is very vague and cannot be interpolated with the body of knowledge that we have available on that disease. We have available knowledge that a carcinoma forms in a scar. There is several theories of why it forms in the scar. Is that what you're asking? Your question is vague.

Q. Yes, sir. Most of them are, Dr. Lang. Thank you for reminding me.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

I'm still confused about your testimony as to the scarring. It's not -- is it your testimony, sir, again, that whatever causes the scar can, likewise, in Mr. Gilboy's case, likewise, be the cause of the development of the lung cancer?

MR. WINN:

I think he's answered your question.

MR. COVERT:

Well, I'm just not sure.

THE WITNESS:

Secondarily, the cause for the scar, as I said earlier, is usually, and most likely, an inflammatory disease. It secondarily results in the scar. The theory of the development of the neoplasm in the scar is then that there may be factors developing in the scar, chemical factors developing in the scar. And that has been proposed as one of the theories for the development of the carcinoma in the scar.

EXAMINATION BY MR. COVERT:

Q. And could one of the chemical developments be the toxins that we've talked

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

about that might be found in sidestream or mainstream smoke? I say maybe.

A. No. The theory has been very specific. It's a disproportionate between silicates and aluminum is the theory, and that's the only theory.

Q. Excuse me. You're telling me that --

A. Silicates are enriched in a scar that harbors carcinoma, whereas aluminum is enriched in scars that does not harbor carcinoma. That's the theory that has been proposed for that.

Q. To your knowledge, sir, have there been concluded that cigarette smoking is a contributing factor to the development of cancers in scars in the parenchyma of the lung?

A. To my knowledge, this is not the case. The only large study that goes into carcinoma and fibrosis makes the statement that there's no relationship to cigarette smoking.

Q. And what study is that, Dr. Lang?

A. I can't give you the precise.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

It's certainly quoted in Frazier and Peret. And it's the study on some 260 patients with fibrosis and scar and carcinoma developing in fibrosis. And in this, there is a definitive statement that there's no relationship to cigarette smoking.

Q. Dr. Lang, would you mind looking that up and finding out exactly where it is and telling Mr. Winn so he can tell me about that?

MR. COVERT:

Is that okay, Bob?

THE WITNESS:

Yeah. I can give it to you. Frazier and Peret is the reference. It's in Volume II, I think. The page, I have to --

MR. WINN:

Volume II is fine.

THE WITNESS:

I can't give you the page.

EXAMINATION BY MR. COVERT:

Q. Frazier and Peret on radiology?

A. It's "Diagnosis of Pulmonary Pathology," I think, is the precise title. It's a four-volume book of pulmonary

MNAT 00021934

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: https://www.industrydocuments.ucsf.edu/docs/lyhl0001

pathology, radiologic diagnosis.

Q. All right, sir.

Are you familiar with any studies that have been done outside of those records reported in Frazier and Peret, the book?

A. On this particular thing?

Q. Yes, sir.

A. No.

MR. COVERT:

Dr. Lang, that's all I've got.

(Short break)

EXAMINATION BY MR. COVERT:

Q. Dr. Lang, there's been some comments about rheumatoid arthritis in Mr. Gilboy. Did that indication have any significance to you in your looking at Mr. Gilboy's X-rays?

A. Rheumatoid arthritis is one entity that is known to cause pulmonary fibroses. There's an increased incidence of carcinoma in pulmonary fibrosis. And again, there is, therefore, a relationship of diseases such as rheumatoid arthritis to pulmonary fibrosis, which, in turn, has a more than triple incidence of carcinoma.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

Q. You spoke of pleural incidence.

A. I'm sorry?

Q. Did I understand you to say pleural incidence of increasing carcinoma? Pleural?

A. Pulmonary. Pulmonary. There is no pleural carcinoma. I'm talking about a lung cancer developing in fibrosis. There is a relationship between fibrosis and the underlying disease, and that, in turn, has an increased incidence of carcinoma.

Q. And upon which -- what do you rely to reach that conclusion, Dr. Lang?

A. I don't understand your question.

Q. Do you have any books or authorities?

A. Yes. Frazier and Peret quotes that again.

Q. Okay.

A. Again, this is the article on pulmonary fibrosis that is associated with these entities.

Q. Okay. Is it your opinion, sir, that if, in fact, Mr. Gilboy had rheumatoid arthritis, that could be one of the causes of

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

his development of this lung cancer?

MR. WINN:

The scarring or the lung cancer, Jerry?

MR. COVERT:

Of the lung cancer.

THE WITNESS:

I don't think so, because the type of manifestations that we see on the films of Mr. Gilboy are more consistent with the scar formation secondary to an infectious inflammatory process and not the interstitial type of fibrosis. This disease is associated with interstitial type of fibrosis, rheumatoid arthritis, and not necessarily with the very massive pleural scarring and lung scarring that we see in Mr. Gilboy.

So, in my opinion, it is more likely, in Mr. Gilboy's case, that we're dealing with inflammatory disease; again, specifically, TB or something like that as the underlying cause for his scarring, and then, in turn, the development of the carcinoma in the scar.

MR. COVERT:

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support by http://www.industrydocuments.ucsf.edu/docs/lyhl0001

Thank you, Doctor. You just saved us another 20 minutes. Now that's really all I've got.

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

WITNESS' CERTIFICATE

I, ERICH K. LANG, M.D., do hereby certify that I have read or have had read to me the foregoing testimony and it is true and correct to the best of my ability and understanding.

CHECK ONE BOX BELOW:

_____ Without Corrections.

_____ With Corrections, Deletions, and/or Additions as reflected on the Errata Sheet attached hereto.

_____
ERICH K. LANG, M.D.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Source: http://www.industrydocuments.ucsf.edu/docs/lyhl0001

C E R T I F I C A T E

I, ROBERT K. TUCKER, do hereby certify that the foregoing testimony was reported by me in shorthand, transcribed under my personal direction and supervision, and is a true and correct transcript to the best of my ability and understanding;

That I am not of counsel, not related to counsel nor to the parties hereto, and in no way interested in the outcome of this suit.

ROBERT K. TUCKER
Certified Shorthand Reporter

3200 Ridgelake Drive
Suite 302
Metairie. Louisiana 70002

Paul W. Williams, Inc.
Certified Shorthand Reporters

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001

WITNESS' CERTIFICATE

I, ERICH K. LANG, M.D., do hereby certify that I have read or have had read to me the foregoing testimony and it is true and correct to the best of my ability and understanding.

CHECK ONE BOX BELOW:

_____ Without Corrections.

✓
_____ With Corrections, Deletions, and/or Additions as reflected on the Errata Sheet attached hereto.

ERICH K. LANG, M.D.

3200 Ridgelake Drive
Suite 302
Metairie, Louisiana 70002

Paul W. Williams, Inc.

(504) 832-0937

http://legacy.library.ucsf.edu/tid/eyq07a00/pdf
Support provided by www.industrydocuments.ucsf.edu/docs/lyhl0001